Unit 2 Review Sheet
Rational Numbers

Int 1   **Unit 2**

For each of the following problems, tell what place value the 5 is located in.

1. 0.157   2. −43.59   3. 59.62   4. 6.905   5. 95.001

hundredths   tenths   tens   thousandths   ones

Simplify.

6.
$$\begin{array}{r} 15.3 \\ +11.9 \\ \hline \end{array}$$
27.2

7. $10.453 + (-12.5) =$

−2.047

8. $-23.87 - 26.13 =$

−50

9. $-20.9 + (-5.23) =$

−26.13

10. $-0.74 - (-0.123) =$

−0.617

For each of the following rational numbers, tell whether they are TERMINATING or REPEATING decimals.

11. 0.66   __terminating__

12. $4.\overline{5}$ __repeating__

13. $\frac{1}{3}$ __repeating__

14. −2.567   __terminating__

15. $\frac{8}{9}$ __Repeating__

16. $\frac{2}{5} = .4$ __terminating__

Write each fraction as a decimal and each decimal as a fraction. Show your work.

17. $-\frac{3}{20} = -0.15$

18. $3\frac{5}{8} = 3.625$

19. −9.36

$$-9\frac{9}{25}$$

20. $\frac{7}{18} = 0.3\overline{8}$

21. $0.045 = \frac{9}{200}$

22. 4.4

$4\frac{2}{5}$

Fill in the blank with <. >, or = to make the statement true. Show your work.

23. $-\dfrac{1}{2}$ $>$ $-\dfrac{3}{5}$

24. $\dfrac{7}{20}$ $>$ 0.34

25. -8.56 $>$ -8.71

26. 0.5 $>$ $0.4\overline{9}$

27. $\dfrac{5}{8}$ $<$ $\dfrac{2}{3}$

Order each set of numbers from least to greatest. Show your work.

28. $\left\{0, -\dfrac{4}{9}, \dfrac{1}{3}, \dfrac{4}{7}, -\dfrac{5}{7}\right\}$

$\dfrac{-5}{7}, \dfrac{-4}{9}, 0, \dfrac{1}{3}, \dfrac{4}{7}$

29. $\left\{2\dfrac{1}{4}, 2\dfrac{4}{7}, 2.3, 2.23\right\}$

$2.23, 2\dfrac{1}{4}, 2.3, 2\dfrac{4}{7}$

Simplify. Show all of your work.

30.
$$\dfrac{6}{11} - \dfrac{10}{11} = \boxed{\dfrac{-4}{11}}$$

31.
$$\left(-\dfrac{6}{7}\right) + \left(-\dfrac{2}{3}\right) = \boxed{-1\dfrac{11}{21} \text{ or } \dfrac{-32}{21}}$$

32.
$$\dfrac{2}{5} + \left(-\dfrac{3}{5}\right) = \boxed{\dfrac{-1}{5}}$$

33. $2\dfrac{1}{8} + 3\dfrac{7}{12} = \boxed{5\dfrac{17}{24} \text{ or } \dfrac{137}{24}}$

34. $4\dfrac{1}{5} + \left(-2\dfrac{1}{2}\right) = \boxed{1\dfrac{7}{10} \text{ or } \dfrac{17}{10}}$

35.
$$4\dfrac{2}{9} - \left(-3\dfrac{2}{3}\right) = \boxed{7\dfrac{8}{9} \text{ or } \dfrac{71}{9}}$$

Simplify. Show all of your work.

36. $\dfrac{5}{9} - \dfrac{4}{5} = \boxed{-\dfrac{11}{45}}$

37. $\dfrac{5}{9} \div \dfrac{4}{5} = \boxed{\dfrac{25}{36}}$

38. $\dfrac{1}{4} - \dfrac{5}{8} = \boxed{\dfrac{-3}{8}}$

39. $-\dfrac{4}{5} \cdot 30 = \boxed{-24}$

40. $3\dfrac{3}{5} \cdot \left(-2\dfrac{1}{2}\right) = \boxed{-9}$

41. $-\dfrac{1}{5} \div (-4) = \boxed{\dfrac{1}{20}}$

42. $\left(-\dfrac{6}{7}\right)\left(-\dfrac{2}{3}\right) = \boxed{\dfrac{4}{7}}$

43. $\dfrac{\frac{2}{3}}{4} = \boxed{\dfrac{1}{6}}$

44. $3\dfrac{1}{2} \cdot 3\dfrac{7}{15} = \boxed{12\dfrac{2}{15} \text{ or } \dfrac{182}{15}}$

45. $\dfrac{4}{\frac{1}{2}} = \boxed{8}$

46. $\dfrac{2}{9} \div \left(-\dfrac{2}{3}\right) = \boxed{\dfrac{-1}{3}}$

47. $\dfrac{-2\frac{3}{5}}{1\frac{1}{4}} = \boxed{-2\dfrac{2}{25} \text{ or } \dfrac{-52}{25}}$

48. $4\dfrac{1}{4} \div 8\dfrac{3}{8} = \boxed{\dfrac{34}{67}}$